# Fleet Sustainability Dashboard (FleetDASH)

Federal Energy Management Program
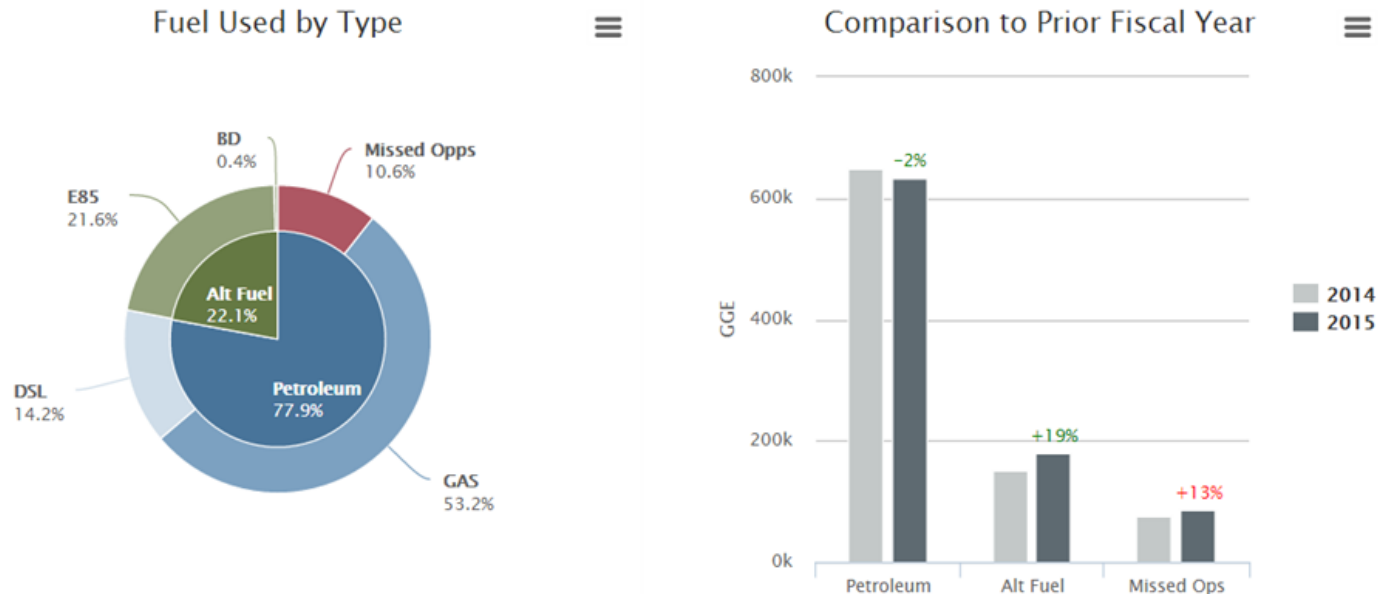
**Mark Singer**
**NREL**
January, 2017

**FEMP**
Federal Energy Management Program

# Agenda

- FleetDASH Overview

- Why FleetDASH?

- FleetDASH Tour

- Latest Updates

- FleetDASH Impact

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

## FleetDASH is a fleet sustainability management tool

**Fuel Used by Type**



BD 0.4%
E85 21.6%
Alt Fuel 22.1%
DSL 14.2%
Petroleum 77.9%
GAS 53.2%
Missed Opps 10.6%

**Comparison to Prior Fiscal Year**



- 2014
- 2015

Petroleum −2%, Alt Fuel +19%, Missed Ops +13%

## Credit card transactions are tracked for fleet fuel purchases

## Provides fleet transparency and accountability

Who is purchasing fuel? How much fuel is purchased? Where is the fuel purchased?

### https://Federalfleets.energy.gov/FleetDASH

# FleetDASH Overview

Actionable Information: Transaction level detail updated monthly

Successes as well as "**Missed Opportunities**" are highlighted

| | Petroleum | | Alt Fuels | | | Missed Opportunities | |
|---|---|---|---|---|---|---|---|
| Vehicle Fuel Type | GGE | % of Total Fuel Use | GGE | % of Total Fuel Use | Total Fuel Use GGE | GGE | % of Total Fuel Use |
| FFV | 368 | 100 | 0 | 0 | 368 | 210 | 57 |

| Station Name | Address | City | State | Zip | Fuel Type Purchased | Date | GGEs Purchased | Missed Opportunity | Alternate Station |
|---|---|---|---|---|---|---|---|---|---|
| Corner Pantry 22 | 904 N DEADWOOD ST | Fort Pierre | SD | 57532 | GAS | 11/17/2015 | 16 | Yes | Alternate Station |
| Shell Service Statio | 621 W SIOUX AVE | Pierre | SD | 57501 | GAS | 11/16/2015 | 15 | Yes | Alternate Station |
| Farmers Union Oil Co | 507 W 1ST ST | Faith | SD | 57626 | GAS | 11/16/2015 | 18 | No | |
| Corner Pantry 22 | 904 N DEADWOOD ST | Fort Pierre | SD | 57532 | GAS | 11/16/2015 | 14 | Yes | Alternate Station |
| Midland Food & Fuel | 404 SD HWY 14 | Midland | SD | 57552 | GAS | 11/10/2015 | 14 | No | |
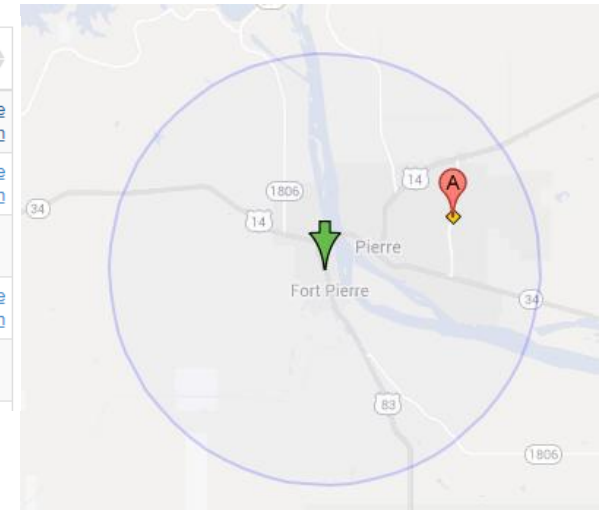
Users can drilldown in organizations to single fuel purchases.

FFV purchases gasoline where public E85 station is within 5 miles.

FFV Purchased 17.15 gal. of Gasoline on 6/1/11 at:

Shell Service Station

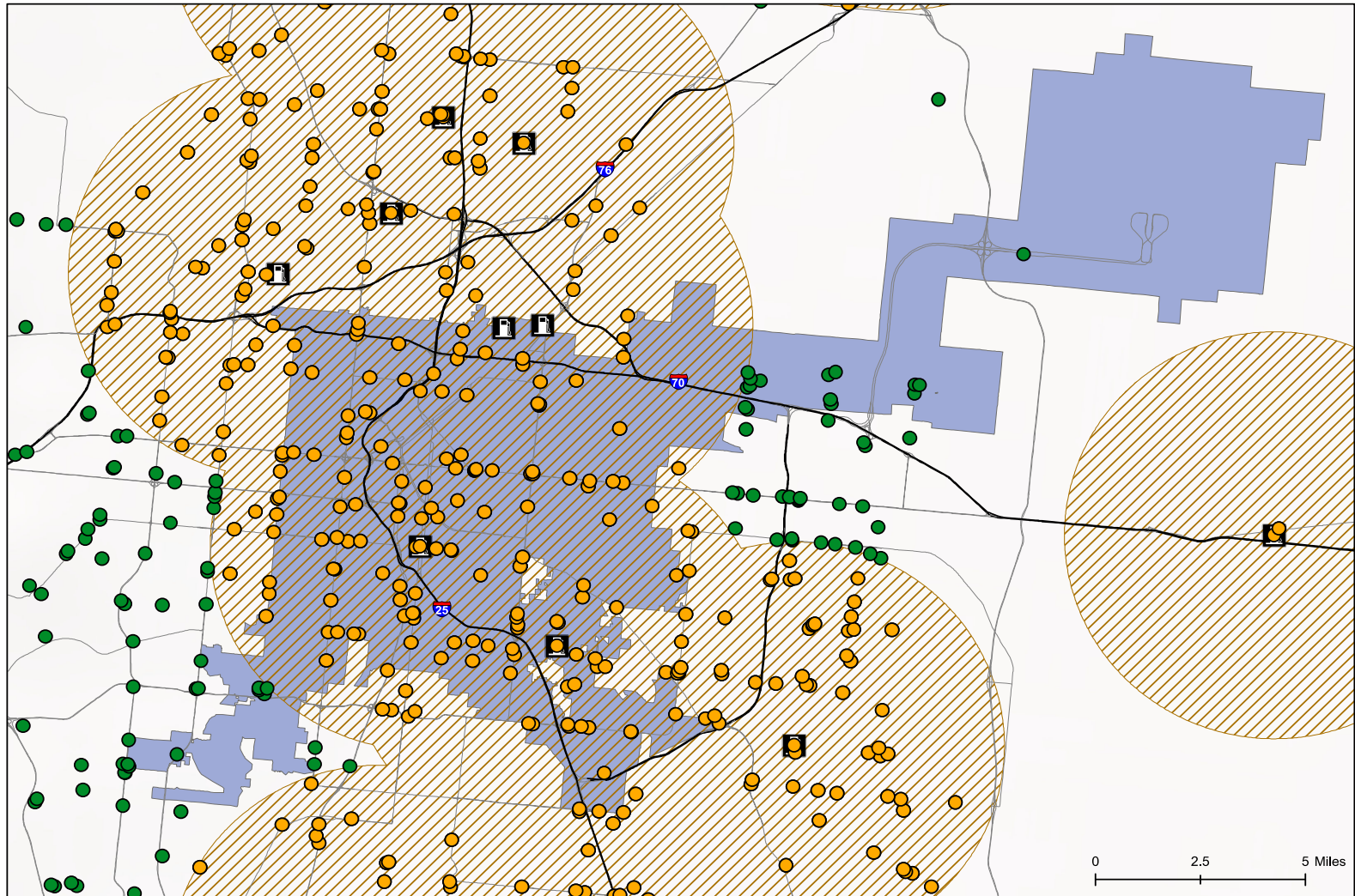3430 Northgate Blvd

Sacramento, CA 95834

FFV could have purchased 17.15 gal. of E85 1 mi away:

Truxel Road Shell

3721 Truxel Rd

Sacramento, CA 95834

(station is public, accepts WEX)

http://www.afdc.energy.gov/afdc/locator/stations/

**Denver, Colorado: FFV Fuel Purchases**



**Stations where Federal FFV Purchased Fuel: 2011**
- Stations Within 5 Miles of E85 Station
- Stations Farther than 5 Miles from E85 Station

E85 Stations
Public/WEX Accepted

Denver City Limits

5 Miles around
E85 Stations

0        2.5        5 Miles

NREL
NATIONAL RENEWABLE ENERGY LABORATORY

This map was produced by the National Renewable Energy Laboratory for the Department of Energy.
May 2012

# Why FleetDASH?

## Existing Alternative fuel consumption requirements

- Dual-fuel vehicles must operate on alternative fuel unless a vehicle receives a waiver from DOE

  – EPAct 2005, section 701

- Covered Federal fleet fueling centers must install at least one renewable fuel pump (E85, B20 or greater, or electricity from renewable sources)

  – EISA 2007, section 246

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## Total FY 2015 AFV Acquisitions by covered Federal Agencies

- CNG 240
- PHEV 263
- LSV 194
- ELE 16
- HEV 2,490
- LPG 6
- DSL 4,082
- E85 24,505
- GAS 15,250
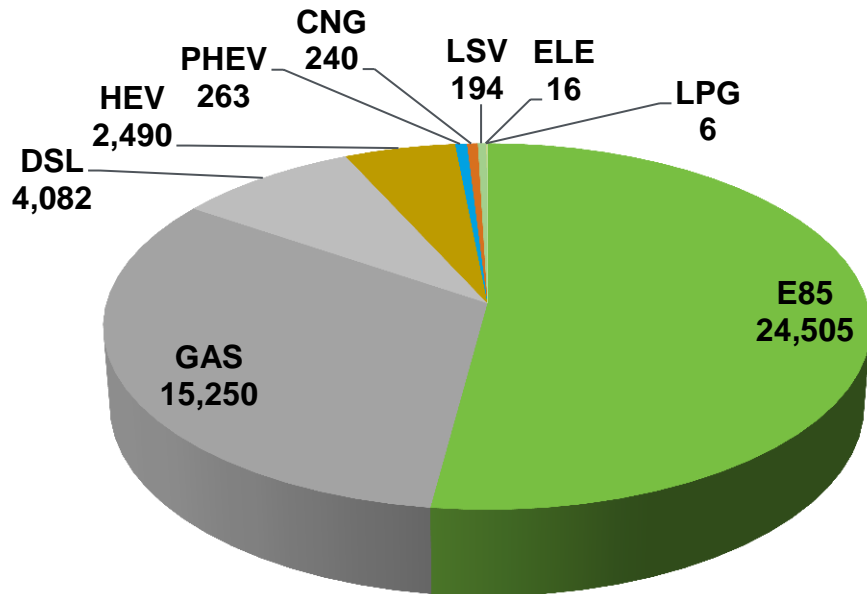
## Total FY 2015 AFV Inventory of covered Federal Agencies

- PHEV 759
- LPG 158
- LSV 3,440
- CNG 1,207
- ELE 138
- HEV 22,863
- LNG 7
- HYD 1
- DSL 65,112
- GAS 312,577
- E85 194,167
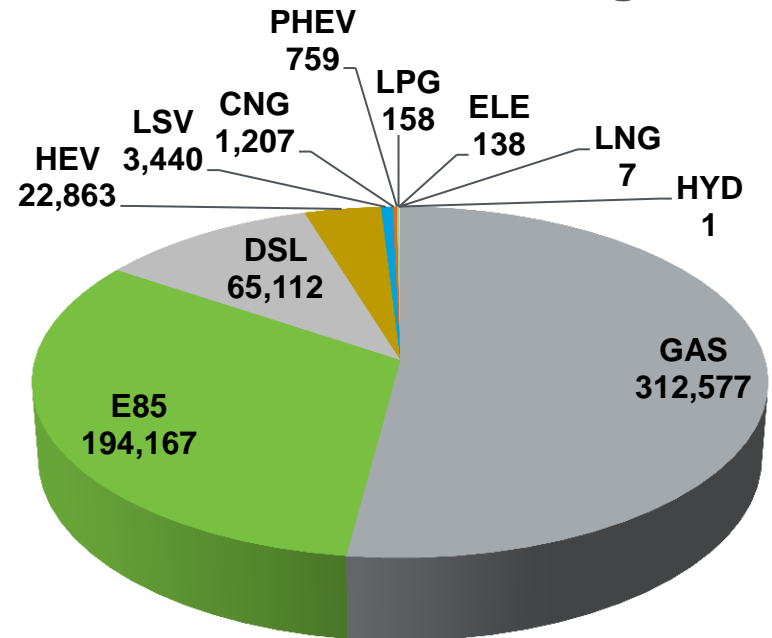
## 37% of the Federal fleet is comprised of AFVs

# FY14 Alternative Fuel Consumption

## FY 2015 Total Fuel Use (GGE)
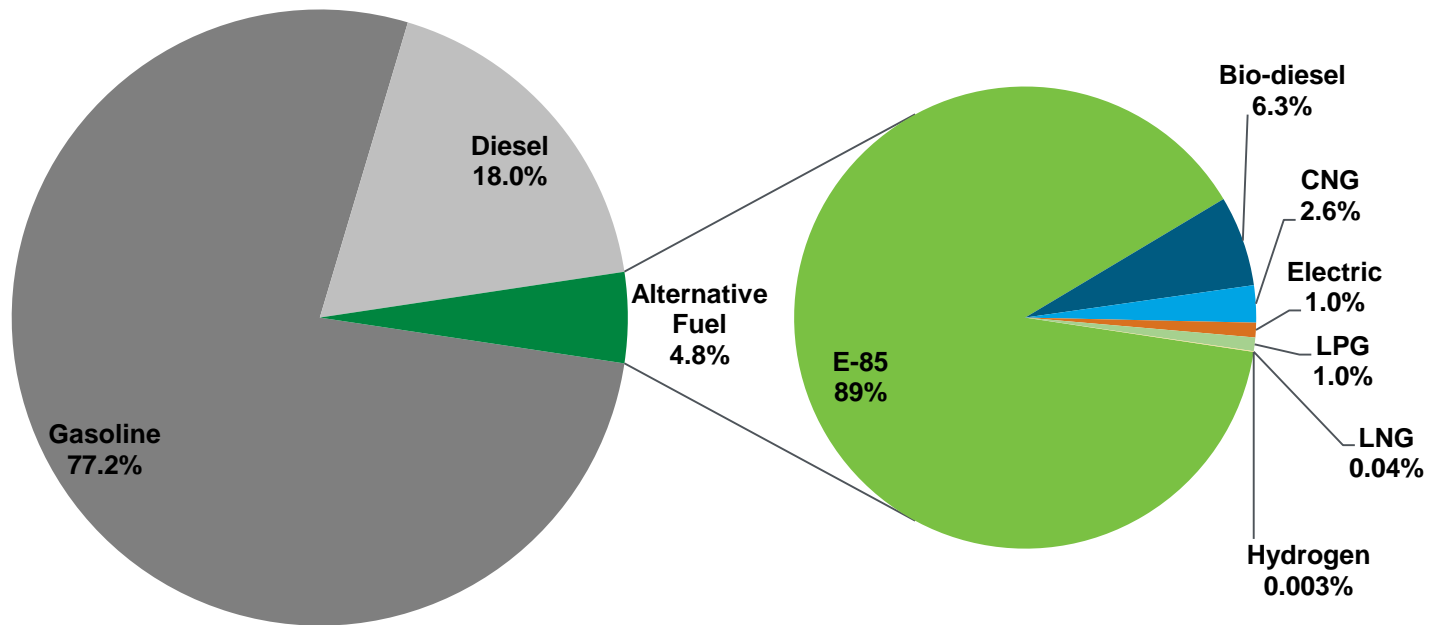


AFV's comprise **37%** of all Federal vehicles, but Alternative Fuel is **4.8%** of total Federal fuel use.

# Alternative Fuel Use Opportunity

Federal fleet alternative fuel use has increased since 2005

**Fed Fleet Alternative Fuel Use**



Chart: Thousands of GGE (y-axis, 0 to 18,000) vs Fiscal Year (x-axis, 2005 to 2015). Data labels: 4,879; 15,100; 13,447; 12,656; 956; 392. Legend: Requirement, Total Alternative Fuel, E-85, Bio-diesel, CNG, LNG, Electric.
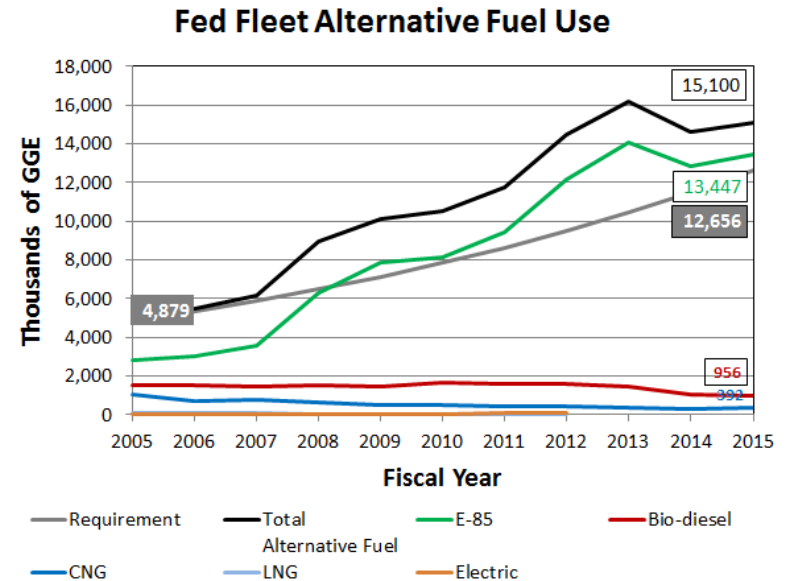
**E85 use in existing FFVs is a significant GHG reduction opportunity**

As of December 2016 FleetDASH agencies could achieve:

- Quadruple E85 use
- 2.2 million additional E85 GGEs per month
- 10% further reduction in petroleum use
- 9% reduction in GHGs

# FleetDASH Tour

# FleetDASH Tour

Welcome to FleetDASH! Specific organizational and vehicle summaries can be found by drilling down through the Fleet Summary Table, the Vehicle Summary Table, or by clicking the Search button in the upper right corner.
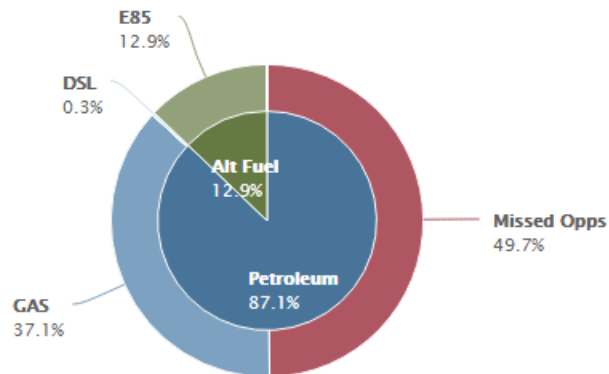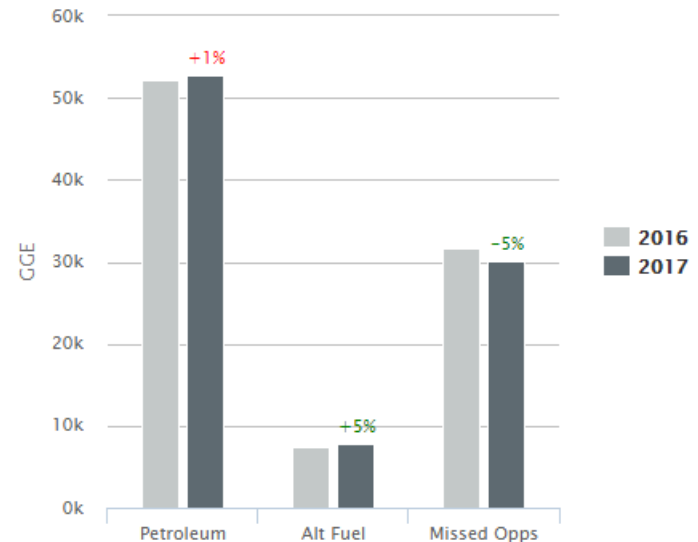
**Fuel Use** | Inventory | Greenhouse Gas

## Fuel Used by Type (FY 2017 to Date)

The Fuel Used by Type pie chart displays the portions of total fuel use that are petroleum or alternative fuels. The Comparison to Prior Fiscal Year chart shows total fuel use this fiscal year compared to the same time last fiscal year. Missed opportunities display the quantities of petroleum that could have been displaced by using alternative fuel.



**Fuel Used by Type**

- CNG 0.0%
- BD 5.9%
- E85 16.9%
- DSL 3.3%
- Alt Fuel 22.8%
- Missed Opps 20.6%
- Petroleum 77.2%
- GAS 53.3%

**Comparison to Prior Fiscal Year**

Legend: 2016, 2017
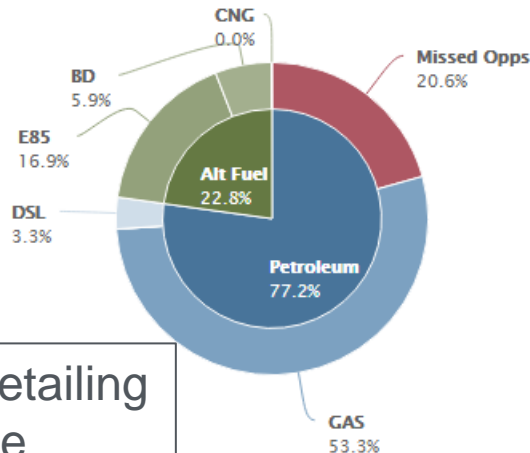
Petroleum: 0%
Alt Fuel: −27%
Missed Opps: +39%
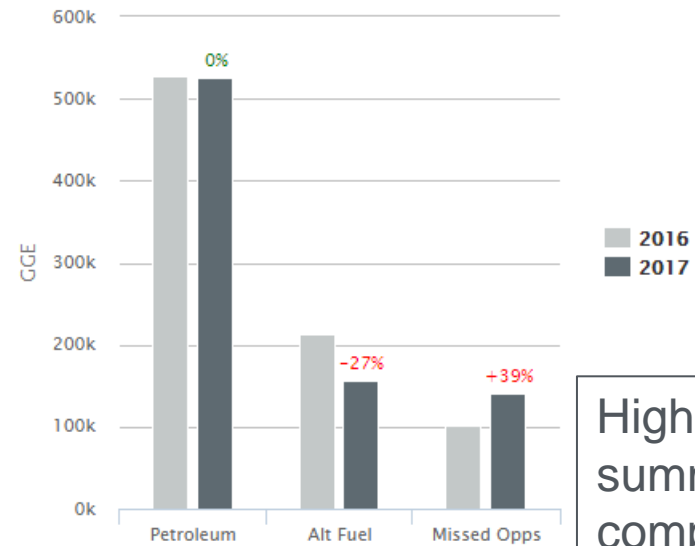
* Comparison through November

Pie Chart detailing Year-to-Date Alternative and Petroleum Fueling

High level summary comparison to the prior year

# FleetDASH Tour

Missed Opportunities are shown as a red line in comparison to fueling pattern.

# FleetDASH Tour

## Summary Table

Fuel consumption is summarized for each fleet in the following table. The percentage of total fuel use is included for each fuel type. Clicking on a fleet will refresh the above charts with summary data and repopulate the fleet and vehicle tables for the entity selected.

Search:

| Fleet | Petroleum FYTD GGE | Petroleum % of Total Fuel Use | Alt Fuels FYTD GGE | Alt Fuels % of Total Fuel Use | Total FYTD Fuel Use GGE | Missed Opportunities FYTD GGE | Missed Opportunities % of Total Fuel Use |
|---|---|---|---|---|---|---|---|
| | 52,763 | 87 | 7,789 | 13 | 60,552 | 30,125 | 50 |
| | 58,056 | 56 | 45,248 | 44 | 103,303 | 21,717 | 21 |
| | 60,284 | 42 | 82,967 | 58 | 143,251 | 18,086 | 13 |
| | 47,523 | 98 | 905 | 2 | 48,428 | 16,187 | 33 |
| | 46,264 | 99 | 320 | 1 | 46,584 | 14,765 | 32 |
| | 69,714 | 100 | 87 | 0 | 69,801 | 13,441 | 19 |
| | 52,856 | 98 | 1,017 | 2 | 53,874 | 12,215 | 23 |
| | 53,211 | 99 | 666 | 1 | 53,877 | 5,676 | 11 |
| | 43,256 | 100 | 43 | 0 | 43,299 | 3,226 | 7 |
| | 17,964 | 80 | 4,367 | 20 | 22,331 | 2,552 | 11 |

← Previous **1** 2 Next →

Fleet Names are clickable to drill-down into the organization.

# FleetDASH Tour

FleetDASH data views refreshed with lower level organizational summary

# FleetDASH Tour

## Vehicle Summary Table    ▾

Fuel consumption is summarized for each vehicle in the following table. The percentage of total fuel use is included for each fuel type. Clicking on a vehicle will take you to a vehicle summary page which includes details and transactions for the selected vehicle.

Download Vehicle Summary CSV

Show totals for: [ FYTD ▾ ]

| Tag⇅ | Vehicle Fuel Type⇅ | Petroleum GGE | Petroleum % of Total Fuel Use | Alt Fuels GGE⇅ | Alt Fuels % of Total Fuel Use | Total Fuel Use GGE | Missed Opportunities GGE▾ | Missed Opportunities % of Total Fuel Use |
|---|---|---|---|---|---|---|---|---|
| G43-3198S | FFV | 376 | 96 | 16 | 4 | 392 | 330 | 84 |
| G41-3646S | FFV | 304 | 100 | 0 | 0 | 304 | 304 | 100 |
| G41-4626P | FFV | 231 | 100 | 0 | 0 | 231 | 231 | 100 |
| G13-3848S | FFV | 285 | 97 | 9 | 3 | 293 | 225 | 77 |
| G41-4121S | FFV | 279 | 100 | 0 | 0 | 279 | 222 | 80 |
| G41-4740R | FFV | 285 | 100 | 0 | 0 | 285 | 207 | 72 |
| G13-2520S | | | | 0 | 0 | 259 | 200 | 77 |
| G61-1195S | | | | 0 | 0 | 232 | 195 | 84 |
| G10-4797P | | | | 0 | 0 | 207 | 195 | 94 |
| G61-1351P | | | | 0 | 0 | 205 | 192 | 93 |

Vehicle Tag numbers are clickable to present vehicle specific data.

Showing 1 to 10 of 636 entries

← Previous  **1**  2  3  4  5  Next →

# FleetDASH Tour

## Vehicle G41-4626P

SEARCH

Show totals for: FYTD ▼

| Vehicle Fuel Type | Petroleum | | Alt Fuels | | | Missed Opportunities | |
| | GGE | % of Total Fuel Use | GGE | % of Total Fuel Use | Total Fuel Use GGE | GGE ▼ | % of Total Fuel Use |
| --- | --- | --- | --- | --- | --- | --- | --- |
| FFV | 231 | 100 | 0 | 0 | 231 | 231 | 100 |

Showing 1 to 1 of 1 entries

← Previous  **1**  Next →

### G41-4626P Vehicle Details  ▼

#### Vehicle Attributes

| | |
| --- | --- |
| Organization Code: | ▓▓▓▓▓▓▓ |
| Tag: | G41-4626P |
| VIN: | 2C4RDGBG4ER390130 |
| SIN: | 20.11DA |
| Fuel Type: | FFV |
| Vehicle Type: | LD Minivan 4x2 (Passenger) |
| Year: | 2014 |
| Make/Model: | DODGE/GRCARAVAN |
| Date Assigned: | 6/6/2014 |
| Avg. Monthly Mileage: | 1905 |
| Garage ZIP: | 64153 |
| Emergency Response: | No |
| Law Enforcement: | No |

#### Point of Contact

| | |
| --- | --- |
| Name: | ▓▓▓▓▓▓ |
| Bureau: | ▓▓▓▓▓▓ |
| Address 1: | ▓▓▓▓▓▓ |
| Address 2: | ▓▓▓▓▓▓ |
| Address 3: | ▓▓▓▓▓▓ |
| City: | ▓▓▓▓▓▓ |
| State: | ▓▓ |
| Zip: | ▓▓▓▓▓▓ |
| Phone: | ▓▓▓▓▓▓ |
| Email: | ▓▓▓▓▓▓ |
| Garage ZIP: | ▓▓▓▓ |

Vehicle fuel summary data is presented along with available vehicle attribute information.

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## Vehicle G41-4626P

SEARCH

Show totals for: FYTD ▼

| Vehicle Fuel Type | Petroleum | | Alt Fuels | | Total Fuel Use GGE | Missed Opportunities | |
|---|---|---|---|---|---|---|---|
| | GGE | % of Total Fuel Use | GGE | % of Total Fuel Use | | GGE▼ | % of Total Fuel Use |
| FFV | 231 | 100 | 0 | 0 | 231 | 231 | 100 |

Showing 1 to 1 of 1 entries

← Previous | **1** | Next →

### G41-4626P Vehicle Details ⌃

### G41-4626P Refueling Transactions ⌄

Individual transactions for the selected vehicle are listed below. The type and quantity of fuel purchased is given. The "Alternate Station" link for each transaction will take you to the Alternative Fueling Station Locator on the Alternative Fuels Data Center where you can search for nearby alternative fuel. If the transaction was a missed opportunity, you will see the alternative fuel stations within 5 miles of the transaction.

Download CSV

Search: _____

| Station Name | Address | City | State | Zip | Fuel Type Purchased | Date ▼ | GGEs Purchased | Missed Opportunity | Alternate Station |
|---|---|---|---|---|---|---|---|---|---|
| Caseys Gen. Store 16 | 669 W ELM ST | Lebanon | MO | 65536 | GAS | 11/29/2016 | 16 | Yes | Alternate Station |
| Kum & Go #456 | 656 N. JEFFERSON | Lebanon | MO | 65536 | GAS | 11/22/2016 | 17 | Yes | Alternate |
| Kum & Go #569 | 2587 N RANGE LINE RD | Webb City | | | | | | | |
| Champion Express | 1840 SOUTH JEFFERSON | Lebanon | | | | | | | |

Individual vehicle transactions are presented. Those transactions that occurred as Missed Opportunities include a link to the Alternative Fuel Station location.

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The Alternate Station location link takes the user to the AFDC station locator with the specific available alternative fuel station location highlighted.



**Alternative Fueling Station Locator**

Find alternative fueling stations near an address or ZIP code or along a route in the United States. Enter a state to see a station count or see stations data by state.

<>Embed    Submit New Station

**Find Stations**    Plan a Route

37.67018650000001,-92    **Go**

Ethanol (E85)

more search options

Ethanol stations near 37.67018650000001,-92.665421 (669 W ELM ST Lebanon MO 65536)
Excluding private stations
Within 5 miles

**A  Break Time Convenience Store #3150**
101 E 7th St
Lebanon, MO 65536
Phone: 417-532-0975
Fuel: Ethanol (E85)
Distance: 1.1 mi

**B  East Gate Express**
22993 Professional Ln
Lebanon, MO 65536
Phone: 417-532-8112

Go to mobile version
Download iPhone app

Download Data    Developer APIs
Data last updated: 01/11/2017

# FleetDASH Tour

Fleet inventory breakdowns display fleet composition by vehicle type and fuel type.

# FleetDASH Tour

## Inventory for December 2016                                    ⌄

Inventory vehicle counts are provided for each fleet in the following table. Clicking on a fleet will refresh the above charts with summary data and repopulate the table for the entity selected.

Download CSV

Search: [                    ]

| Node | Count ▾ | Net Change From Prior Month | LE/ER | Avg. Vehicle Age |
|---|---|---|---|---|
|  | 1,598 | -12 | 58 | 2 |
|  | 1,387 | -25 | 49 | 2 |
|  | 663 | -2 | 0 | 1 |
|  | 647 | 0 | 0 | 1 |
|  | 627 | 0 | 0 | 1 |
|  | 574 | -3 | 0 | 1 |
|  | 557 | -4 | 0 | 1 |
|  | 505 | 2 | 3 | 3 |
|  | 478 | 1 | 0 | 1 |
|  | 426 | 1 | 0 | 2 |
| TOTALS | 8,234 | -44 | 111 | 2 |

Showing 1 to 10 of 15 entries

← Previous | 1 | 2 | Next →

Fleet inventory summaries display simple summaries and allow drill-down.

# Latest Updates

## Stations with known fuel coding issues can now be flagged

| Station Name | Address | City | State | Zip | Fuel Type Purchased | Date ▼ | GGEs Purchased | Missed Opportunity | Alternate Station |
|---|---|---|---|---|---|---|---|---|---|
| Shell Service Statio | 17951 S HALSTEAD RD | Homewood | IL | 60430 | GAS | 10/28/2016 | 10 | Yes (FC) | Alternate Station |
| Shell Service Statio | 17951 S HALSTEAD RD | Homewood | IL | 60430 | GAS | 10/24/2016 | 10 | Yes (FC) | Alternate Station |

*FC - Fuel coding issues have been reported at this station which caused E85 purchases to appear as gasoline purchases.*

Contact Mark.Singer@nrel.gov with known fuel coding issues

# Updated User Functionality

## Now possible to filter vehicle data by month in the Vehicle Summary Table

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## … and pull transaction level summaries for an organization rather than only a specific vehicle



Vehicle Summary Table

Fuel consumption is summarized for each vehicle in the following table. The percentage of total fuel use is included for each fuel type. Clicking on a vehicle will take you to a vehicle summary page which includes details and transactions for the selected vehicle.

Download Vehicle Summary CSV    Download Vehicle Fuel Transactions CSV

Show totals for: October 2016

| Tag | Vehicle Fuel Type | Petroleum | | Alt Fuels | | Total Fuel Use GGE | Missed Opportunities | |
|-----|-------------------|-----------|--|-----------|--|--------------------|----------------------|--|
|     |                   | GGE | % of Total Fuel Use | GGE | % of Total Fuel Use |  | GGE | % of Total Fuel Use |

"Download Vehicle Fuel Transactions CSV" provides a file with all the transaction data for the chosen organization.

*In order for the link to show up the user must select a month and be at the lowest level of the organization (i.e. the BOAC level).

# GHG Tracking

Access the greenhouse gas views through Greenhouse Gas tab

# Greenhouse Gas Metrics
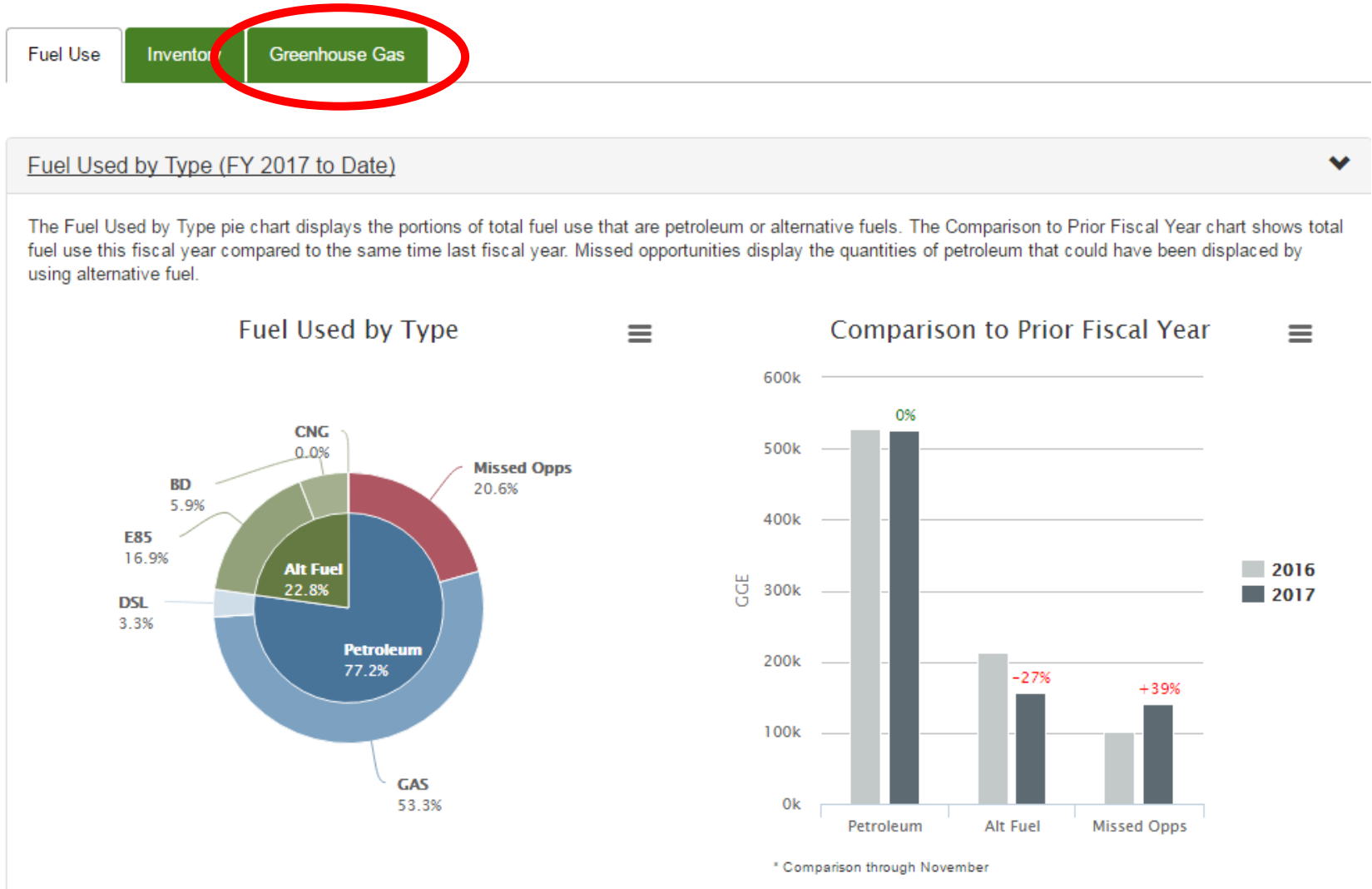
Compare the impact of various fuel types on fuel use totals versus greenhouse gas totals
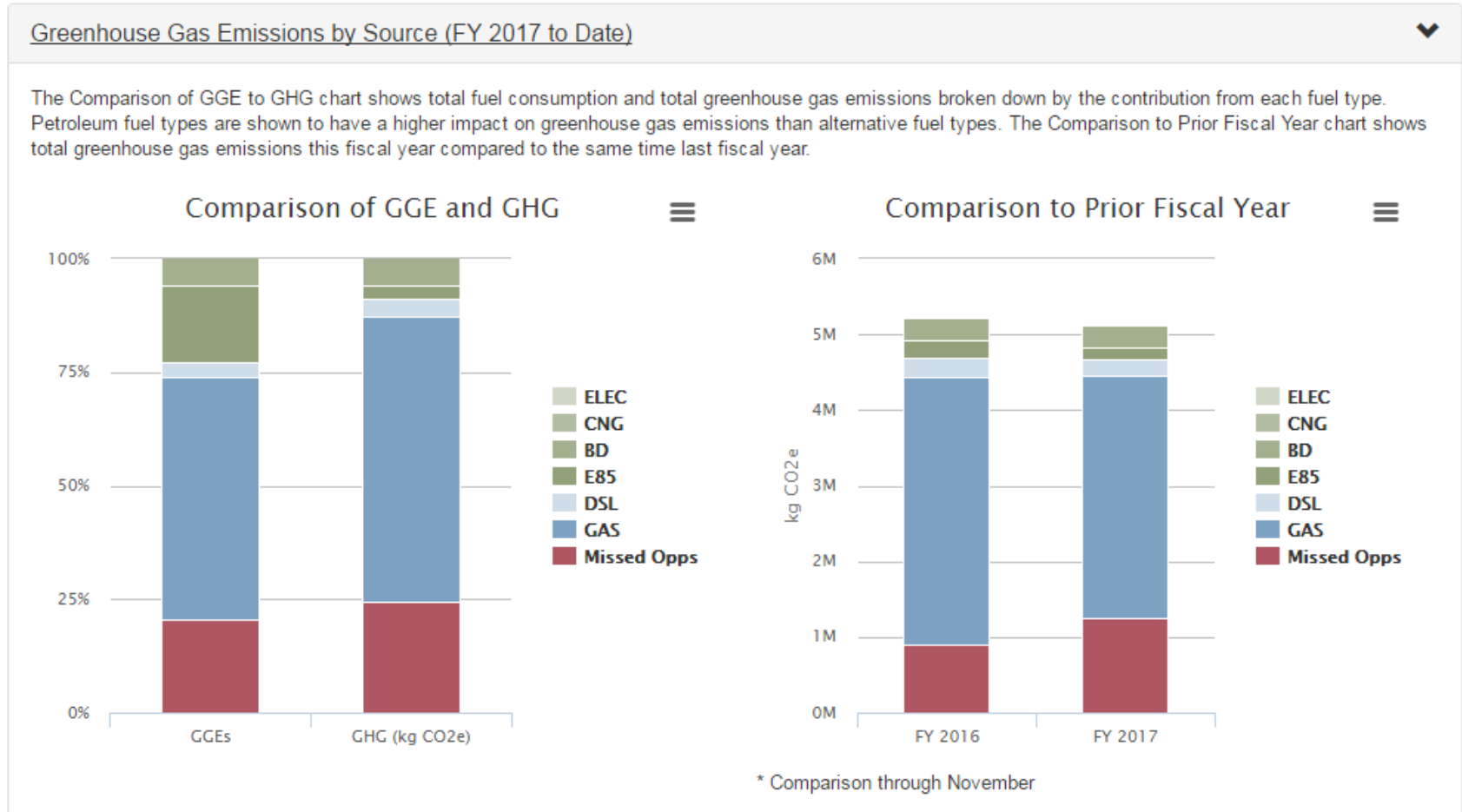


Compare current year performance to the prior year

## Track monthly greenhouse gas emissions trends
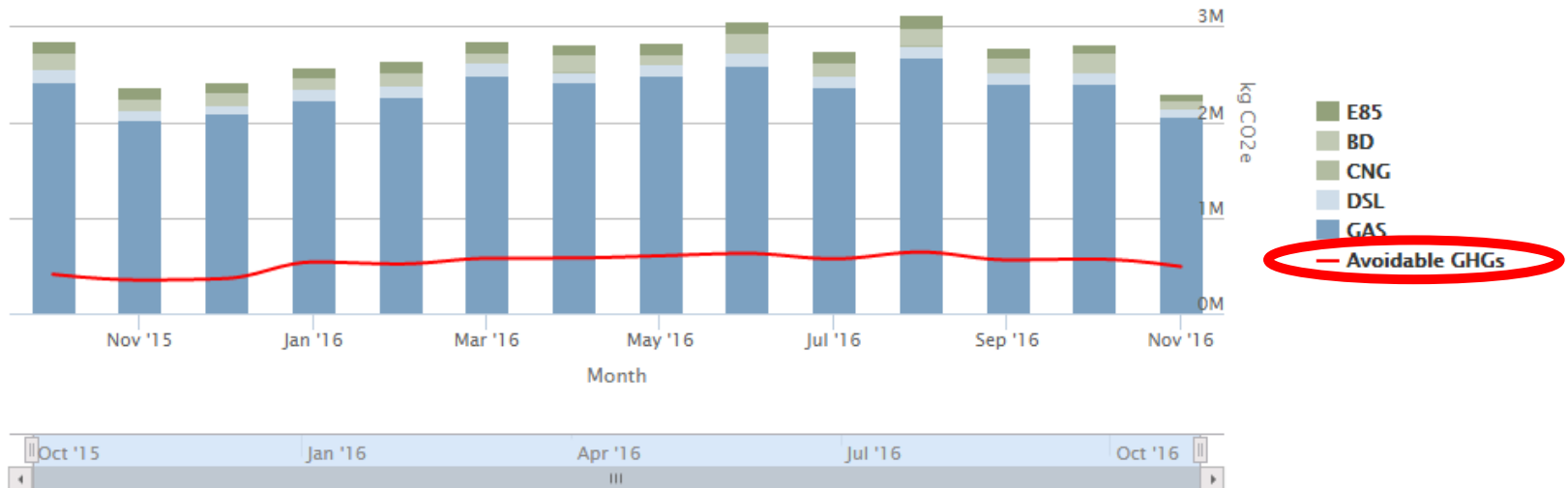


Identify the portion of emissions that could be *avoided* if missed opportunities were reduced

Avoidable GHGs = represent the potential emissions savings if missed opportunities were converted to the appropriate alternative fuel purchase

# Greenhouse Gas Metrics

## Identify organizations with high/low emissions

Summary Table ⌄

Fuel consumption and greenhouse gas emissions are summarized for each fleet in the following table. Clicking on a fleet will refresh the above charts with summary data and repopulate the fleet and vehicle tables for the entity selected.

Search: [                    ]

| Fleet | FYTD GGEs | | | Missed Opportunities | GHG (kgCO2e) | Avoidable GHGs from Missed Opportunities (kgCO2e) | Number of Vehicles with Transactions | Average GGE/ Vehicle | Average kgCO2e/ Vehicle | Average kgCO2e/ GGE |
|---|---|---|---|---|---|---|---|---|---|---|
| | Petroleum | Alt Fuel | Total Fuel | | | | | | | |
| ▓▓▓▓ | 10,089 | 569 | 10,658 | 1,987 | 91,649 | 14,947 | 137 | 78 | 669 | 8.6 |
| ▓▓▓▓ | 17,964 | 4,367 | 22,331 | 2,552 | 165,833 | 19,045 | 327 | 68 | 507 | 7.4 |
| ▓▓▓▓ | 47,523 | 905 | 48,428 | 16,187 | 422,669 | 121,788 | 417 | 116 | 1,014 | 8.7 |
| ▓▓▓▓ | 58,056 | 45,248 | 103,303 | 21,717 | 619,185 | 163,401 | 1,079 | 96 | 574 | 6.0 |

Identify concentrations of emissions and opportunities to *avoid* emissions through reducing missed opportunities

# Greenhouse Gas Metrics

## Drilldown to individual vehicles

### Vehicle Summary Table ⌄

Fuel consumption and greenhouse gas emissions are summarized for each vehicle in the following table. Clicking on a vehicle will take you to a vehicle summary page which includes details and transactions for the selected vehicle.

Download Vehicle Summary CSV

Show totals for: FYTD ▾

| Tag | FYTD GGEs | | | | GHG (kg CO2e) | Avoidable GHGs from Missed Opportunities (kgCO2e) | Average kgCO2e/ GGE |
|---|---|---|---|---|---|---|---|
| | Petroleum | Alt fuel | Total Fuel | Missed Opportunities | | | |
| G11-0460R | 620 | 0 | 620 | 620 | 5,492 | 4,664 | 8.9 |
| G42-1997S | 849 | 0 | 849 | 595 | 7,530 | 4,474 | 8.9 |
| G11-0830P | 558 | 0 | 558 | 558 | 4,943 | 4,198 | 8.9 |
| G42-2108S | 538 | 0 | 538 | 538 | 4,766 | 4,048 | 8.9 |
| G11-0403R | 461 | 0 | 461 | 461 | 4,084 | 3,469 | 8.9 |

Compare rates of greenhouse gas emissions by vehicle and identify opportunities to *avoid* emissions

# Greenhouse Gas Metrics

**Summary:**

Greenhouse gas metrics in FleetDASH allow users to:

- Understand how fuel use converts to emissions
- Identify concentrations and rates of emissions
- Identify the scale of the opportunity to reduce emissions through alternative fuel use

# FleetDASH Monthly Performance Feedback Emails
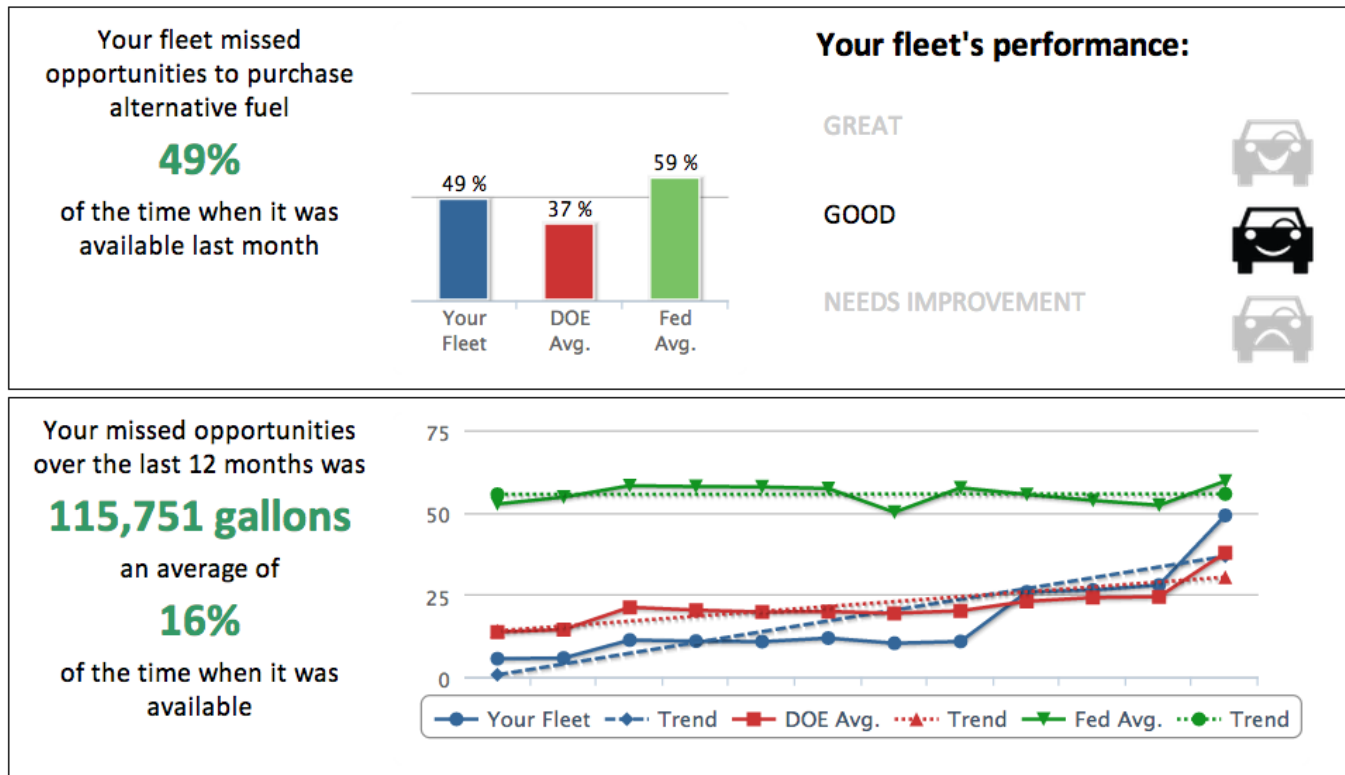
- Multiple email formats: Positive vs. Negative & Peer to peer vs. Individual
- Monitor the impact on behavior, and adapt

# FleetDASH Impact

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# Scale of FleetDASH

| | January 2016 |
|---|---|
| Agencies | 29 |
| Users | 1,400 |
| Unique Vehicles (*includes those that have left the fleet) | ~1,000,000 |
| Data Sources | 4 (GSA Leased, WEX - USDA, Voyager - USPS, TVA) |
| % of Federal Fleet | ~70% |
| Unique Station Locations | ~200,000 |
| Transactions Processed/Month | ~2,000,000 |

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FY 2016

Made
9%
645,638

Missed
20%
1,426,902

Non-Opp
71%
5,145,399

## The Navy has made steady progress on increasing alternative fuel use.



**Petroleum Use by Quarter (GGE)**



**Alternative Fuel Use by Quarter (GGE)**
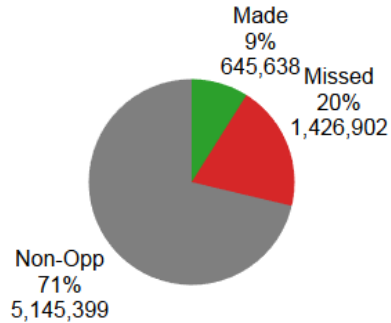


**Missed Opps by Quarter (GGE)**
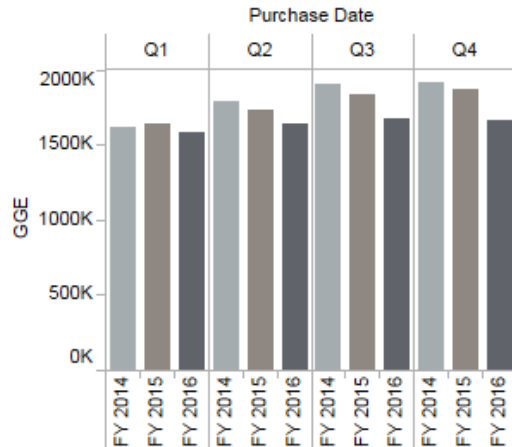
Petroleum use has been cut and lower utilization levels have been maintained
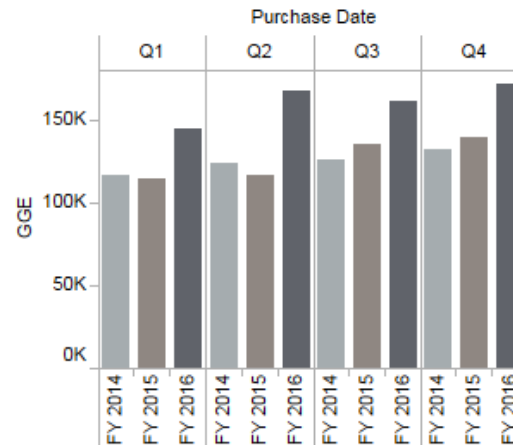
Alternative fuel use has steadily increased.
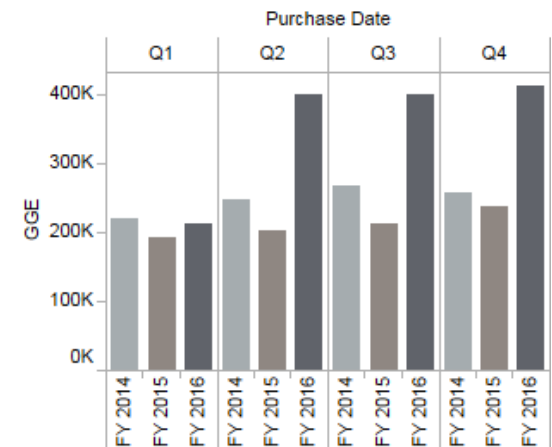
Missed opportunities to use available alternative fuel have been cut
*FY 2016 increase due to capturing agency-owned stations.

**The USMC has maintained improvements and continues to increase alternative fuel use.**



FY 2016

Made 27% 1,270,735

Non-Opp 54% 2,525,648

Missed 18% 843,733

Alternative Fuel Use by Quarter (GGE)
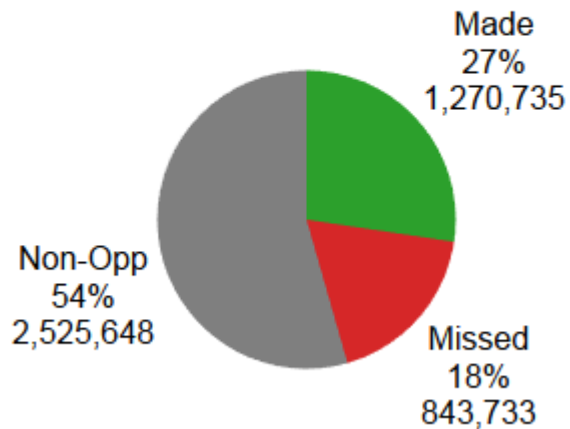
Petroleum Use by Quarter (GGE)
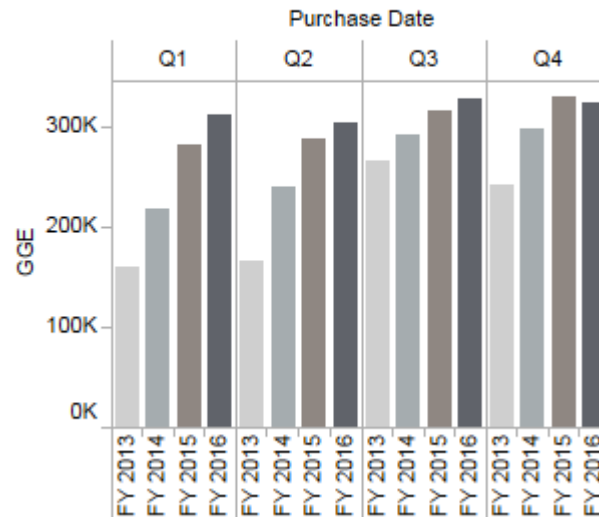
Alternative fuel use has steadily increased.

Petroleum use has been cut and lower utilization levels have been maintained
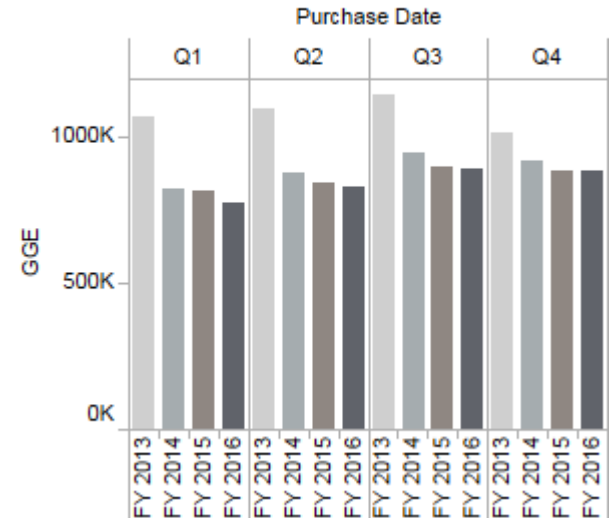
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## NASA has maintained extremely low rates of missed opportunities.
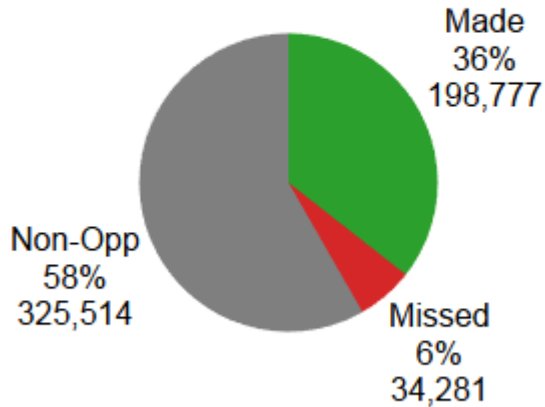


Missed opportunities to use available alternative fuel are very low.
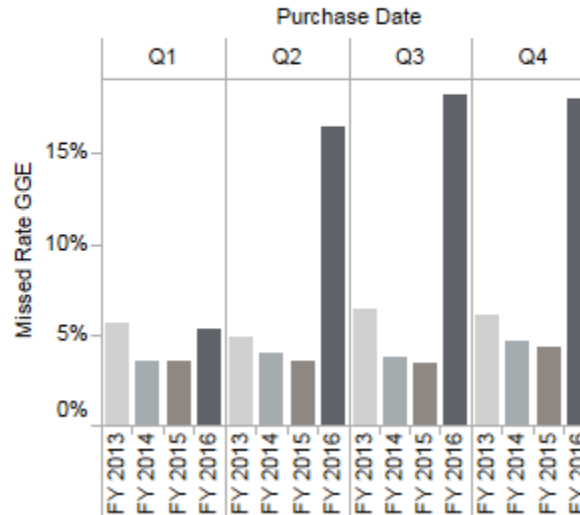


Rates of missing opportunities to use available alternative have been cut steadily and maintained at low levels.
*FY 2016 increase due to capturing agency-owned stations.



Petroleum use has been cut and lower utilization levels have been maintained
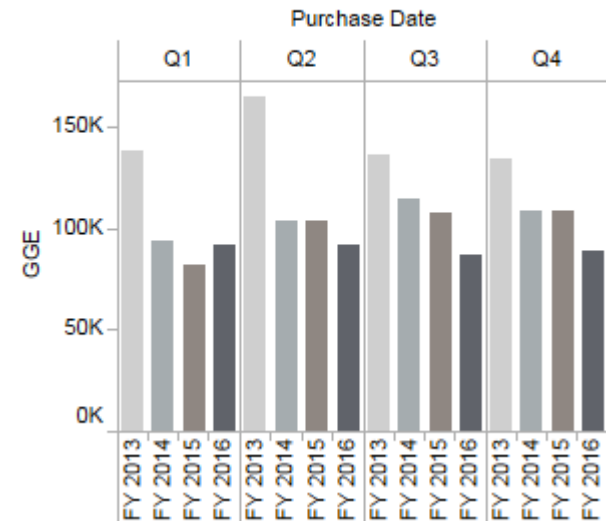
# FleetDASH Impacts

The USACE has steadily increased alternative fuel use and decreased missed opportunities since engaging with the tool in March 2015. This improvement will help USACE efforts to achieve the goals of E.O. 13693.
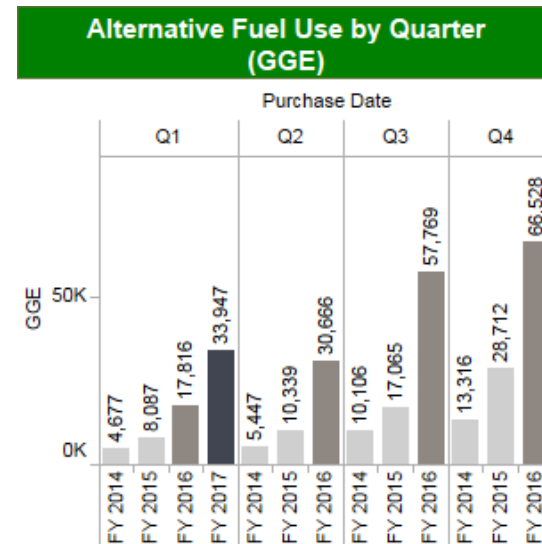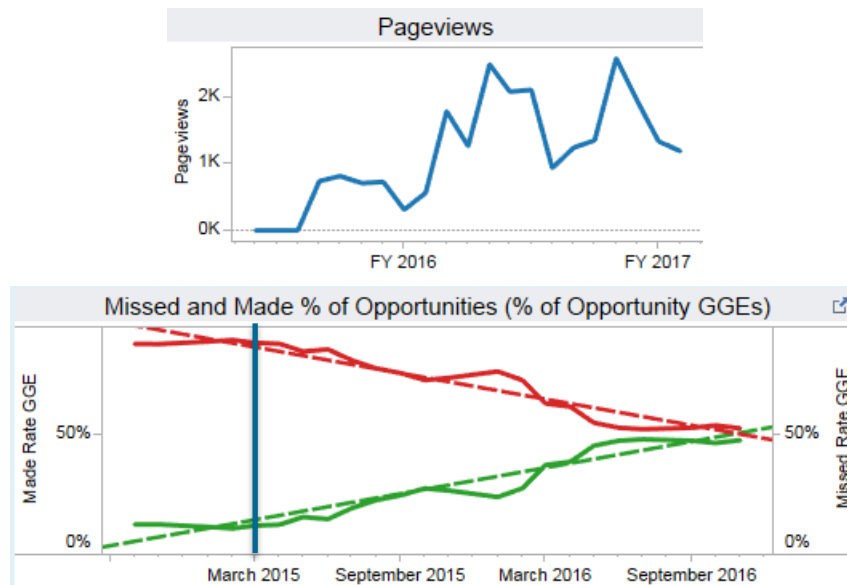


In FY 2016, the GSA leased vehicle portion of the fleet has achieved:

- 112K GGEs of additional E85 use in FY16 compared to FY15
- 165% increase in E85 use
- E85 use increased from 1.7% of total fleet fuel use to 4.5%
- 1,174 MT $CO_2e$ reduced

## USMC Support Analysis:

DOE FEMP and USMC have partnered on AFV acquisition support.

FleetDASH data is used to create metrics to highlight opportunities for potential AFV deployment.

Metrics and data are intended to support on-the-ground knowledge of vehicle utilization and suitability for AFV deployment.

**Flex Fuel Vehicles??**

**Hybrid Electric Vehicles??**          **Plug-in Electric Vehicles??**

## USMC Support Analysis:

**FFVs –** high percentage of transactions near available E85

| FFV Opportunity | |
|---|---|
| Enter E85 Availability % | |
| Minimum % of Transactions with E85 Availabile (User Entered) | |
| | 75% |

| Tag | % of Transactions near E85 | FFV Opportunities |
|---|---|---|
| G10-2878R | 0% | |
| G10-6848L | 94% | FFV |
| G10-2900R | 19% | |
| G10-5886K | 72% | |
| G10-2901R | 0% | |
| G10-7563F | 3% | |
| G32-0433B | 0% | |
| G32-02006 | 100% | FFV |
| G32-02007 | 100% | FFV |
| G32-0165G | 94% | FFV |
| G32-0164G | 100% | FFV |

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## USMC Support Analysis:

**HEVs –** high percentage of transactions in metro areas where stop-and-start driving is more likely

| HEV Opportunity |
|---|
| Enter CBSA % |
| Minimum % of Transactions within a metro area (User Entered) |
| 100% |

| Tag | % of Transactions in CBSA | HEV Opportunities |
|---|---|---|
| G10-2186L | 91% | |
| G10-2612R | 92% | |
| G10-2466S | 100% | HEV |
| G12-0124S | 90% | |
| G12-0273S | 100% | HEV |
| G10-2789S | 67% | |
| G10-1977S | 100% | HEV |
| G12-0438S | 100% | HEV |
| G10-0084S | 100% | HEV |

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## USMC Support Analysis:

**PEVs –** consistently return to the same station location and have relatively high annual mileages

| EV Opportunity | | |
|---|---|---|
| Enter values in orange boxes to define boundaries of EV | | |
| Maximum Average Distance Between Consecutive Transactions (User Entered) | Maximum Distance Between Consecutive Transactions (User Entered) | Minimum Annual Mileage (User Entered) |
| 1 | 10 | 10,000 |

| Tag | Avg Dist Between Consecutive Transactions | Max Dist Between Consecutive Transactions | Annual Mileage | EV Opportunity |
|---|---|---|---|---|
| G32-0026F | 0.0 | 0.0 | 6,516 | |
| G32-0029F | 0.0 | 0.0 | 6,096 | |
| G32-0319K | 0.0 | 0.0 | 11,760 | EV |
| G32-0320K | 0.0 | 0.0 | 13,452 | EV |
| G32-0204P | 0.0 | 3.6 | 11,148 | EV |
| G32-0249N | 0.0 | 0.0 | 3,552 | |
| G32-0250N | 9.0 | 148.5 | 11,880 | |

# Questions??

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# Back-up

# Other Fleet Tools

# Other Fleet Resources

- Section 701 Training

- Alternative Fuels Data Center

- Station Locator

- Find a Car

- Vehicle Cost Calculator

- Petroleum Reduction Planning Tool

# Changing Driver Behavior - Training

- 15-minute, on-demand training

- EPAct 2005 § 701 requirement to use alternative fuel

- How to identify dual-fuel vehicles

- How to locate alternative fuel stations



https://federalfleets.energy.gov/information_resources#training

# Alternative Fuels Data Center



http://www.afdc.energy.gov/

# Station Locator



http://www.afdc.energy.gov/locator/stations/

# Find A Car



http://fueleconomy.gov/feg/findacar.shtml

# Vehicle Cost Calculator



http://www.afdc.energy.gov/calc/

# Petroleum Reduction Planning Tool

https://www.afdc.energy.gov/prep/

# Changing Driver Behavior - Training

- 15-minute, on-demand training
- EPAct 2005 § 701 requirement to use alternative fuel
- How to identify dual-fuel vehicles
- How to locate alternative fuel stations